REMARKS

Claims 1-46 were pending. Claims 1-45 have been amended, and claim 46 has been deleted. Therefore, claims 1- 45 are now under consideration in the subject application.

Claim 1 has been amended by canceling the reference numerals and by recasting it such that it includes an amended characterizing portion reciting features that, as discussed below, distinguish the claimed system over the prior art references cited by the examiner.

Claims 2-42, 44 and 45 have been amended by canceling the reference numerals.

Claim 27 has been further amended to more clearly recite the general nature of the fifth information and its use, and by canceling the reference numerals.

Claims 28-29 and 35-36 include further amendments that will be referred to herein below in more detail, to overcome the rejections under §112, second paragraph.

Claim 43 has not been amended.

Claim 45 has been further amended by including the subject matter of previous claims 45 and 46, the claim being structured such that its characterizing portion recites features that, as discussed below, distinguish the claimed system over the prior art references cited by the examiner.

The amendments to the claims address are intended define the claimed subject matter so as to overcome the examiner's rejections in the Office Action mailed January 13. 2003. It is believed that no issue of new matter is raised by the amendments.

Claim Rejections under 35 U.S.C. §112

§112, second paragraph:

Claims 28-29 and 35-36 have been rejected as failing to point out and specifically claim that which applicant regards as the invention. The wording of these claims has been amended to provide clearer resolution of the claimed subject matter.

Claim 28 has been amended to more clearly define the nature of the admissible identification code that, in accordance with the embodiment recited in said claim, may be further comprised in the fifth information mentioned in claim 27, *i.e.* to make it clear that, in accordance with said embodiment, to access the menu by the admissible identification code of the payee,

said admissible identification code is composed of a first selectable telephone number that is comprised of one of the reference codes of the menu of claim 4 and an identification code of the payee who offers the product/service corresponding to the reference code. This embodiment provides direct access to a certain product or service offered by a payee.

Claim 29 has been amended to more clearly define the nature of the admissible identification code that, in accordance with the further embodiment of said claim, may be further comprised in the fifth information mentioned in claim 27, *i.e.* to make it clear that in accordance with said embodiment, to the admissible identification code of the payee, said admissible identification code is an access telephone number that gives access to a menu of product/service offered by a payee.

Claim 35 has been amended by simplifying the language of the definition of the basic features for transactions between two mobile telephones *i.e.* the mobile telephone of a payer and the mobile telephone of a payee.

Claim 36 has been amended by making it dependent from claim 1 and by merging the subject matter of previous claim 36 with amended claim 35. The language of the definition of the operation of the confirmation generating means in association with the third verifying means, the authorization means and the selecting means originating from previous claim 36, has been improved.

It is respectfully submitted that the present amendments obviate the examiner's rejections to the claims raised on the grounds of 35 U.S.C. §112, second paragraph. Accordingly, withdrawal of said rejections is requested.

Claim Rejections under 35 U.S.C. §103

The examiner previously rejected claims 1-46 under 35 U.S.C. 103(a) as unpatentable over Heinonen (U.S. Pat. No. 6,418,326) in view of Hannula (U.S. Pat. No. 6,366,893) and further in view of Jachimowicz (U.S. Pat. No. 5,789,733). As this rejection may pertain to the claims as amended, it is traversed.

In this regard and in addition to soliciting the examiner to again review applicant's remarks filed on January 17, 2003 in response to the Office Action mailed July 17, 2002, applicant submits the following.

The characterizing portion of amended claim 1 as submitted herewith defines the following features:

(A) - the first telecommunication means comprise a plurality of telecommunication equipment

(B) - the safety criterion in the first information in first data storage means is associated univocally to the associated payer's telephone number,

(C) - the third verifying means additionally verify in the first data storage means whether a safety parameter received through the telecommunication means satisfies the safety criterion associated to the admissible telephone number detected by the first verifying means:

(D) - the second data storage means further contain at least second information referring to the type of digital mobile telephone apparatus corresponding to each telephone number;

(E) the first server further comprises

- selecting means for verifying the second information corresponding to the digital mobile telephone unit identified by the admissible telephone number in said second data storage means, and for selecting one of the telecommunication equipments that communicates with a digital mobile telephone identified by the admissible telephone number by means of a telecommunication service that is compatible with the type of digital mobile telephone identified in said second information.

Further, the characterizing portion of amended claim 45 as submitted herewith recites that

the method comprises verifying the type of digital mobile telephone associated to the admissible telephone number, in second data storage means and selecting one telecommunications equipment for communicating with the digital mobile telephone identified by the admissible telephone number, through a telecommunications service being compatible with the type of digital mobile telephone identified by the admissible telephone number.

Heinonen teaches a system for processing payments between payers and payees using a communication by means of digital telephony. For use of the payment system, the payers mobile station 1 comprises a master control unit (MCU) connected to a module card 13 that contains the SIM and additionally application modules 19 that contains a payment application 18. For making a payment, Heinonen teaches (*cf.* figures 1, 5 and 7, col. 5, line 42- col. 6, line 3) that the mobile station 1 comprises first means of data transfer, such as an infra red IR transmitter/receiver used to transfer data with relatively short distances between the mobile station and the cash register 21 or, *e.g.* between two different mobile stations 1.

Heinonen further teaches that the payment application 18 mobile unit 1 operates as electronic purse, credit card and/or cash card, this being achieved by a communication between a remote server, as for example the computer 22 of a bank, with which the patented mobile unit communicates so as to update debits and credits on the remote account and so as to store an updated balance in the mobile station 1 itself (*e.g.* claim 1; col. 10, lines 57-67).

In view of the above, the teachings in Heinonen are that, for making a payment, the mobile unit 1 of the payer communicates directly with the payee, *i.e.* with the EPOS 21 or with the mobile station 1 of another payee, and not with a computer of a bank or other thereto related server. Moreover, the only teaching in Heinonen in respect of the payment mode itself is that the digital payment is made through the first means of data transfer used to transfer data with relatively short distances, *i.e.* the success that a transaction has been successfully made is not transmitted from a remote server.

In accordance with Heinonen, communication with the computer of the bank with the payer's mobile station to provide payment authorization to the payer's mobile station, is established online, *i.e.* all steps to be performed to "load" digital funds on the payer's mobile station are successively performed within the same telephone call. Therefore, Heinonen's system lacks second information referring to the type of mobile telephone number in second storage means and thus also selecting means capable of selecting the telecommunication service being compatible with the type of digital mobile identified in said second information, so as to place confirmation/authorization calls to the payer's mobile station through the most suitable telecommunications network.

When comparing the system disclosed in Heinonen, it becomes apparent that Heinonen does not disclose

(i) telecommunication means comprising a plurality of telecommunication equipment components;

(ii) a safety criterion univocally associated to the associated payer's telephone number;

(iii) first verifying means that verify whether a first message received through the telecommunication means contains an admissible identification code of a payee;

(iv) third verifying means that verify in the first storage means whether a safety parameter received through the telecommunication means satisfy the safety criterion and that generate a third acceptance message when detecting that the safety parameter satisfies the safety criterion associated to the admissible telephone number;

(v) confirmation message generating means that generate at least a confirmation message to the telecommunication terminal identified by the admissible identification code;

(vi) second data storage means that contain at least second information referring to the type of digital mobile telephone belonging to each telephone number;

(vii) selecting means for verifying in the second data storage means, the second information corresponding to the digital telephone identified by the admissible telephone number, and for selecting one of the telecommunication equipments so as to use that one of the telecommunication equipments being able to communicate with the digital mobile telephone identified by the admissible telephone number by means of a telecommunication service being compatible with the type of digital mobile telephone identified in said second information.

The disadvantages of Heinonen's system are manifold:

First, the payer's and the payee's need to be equipped with specific first data transfer means operating in a different manner than the standard telephone operation. This increases the cost of the mobile terminal and further does not allow to make transactions with mobile units that do not have such specific data transfer means, these facts limiting the possibility of implementing Heinonen's system to mobile units and to payment terminals being equipped with the data transfer means.

Second, the fact that the specific short-distance data transfer means as for example Infra Red (IR) transmitter/receiver, on the one hand require additional (and compatible) ciphering/encryptation protocols to be present in the mobile station and in the payee's station. This fact implies that in Heinonen's system payment is limited to those systems where payer's and payee's apparatus contain such compatible protocols. On the other hand, short distance data transmission between the payer's mobile station and the payee's station poses additional security problems as it is well known, as for example, wireless communication between PCs, between PCs and computer peripherals such as a computer mouse, a scanner, a printer, etc., that such short distance data transmission may be intercepted, despite being encrypted, by unauthorized third parties.

Third, the fact that the payee's station receives payment data only from the payer's mobile station poses additional security problems inasmuch the payer's mobile station could be manipulated so as to transmit false payment data to the payee's station. Further, it should be taken into account that payees such as merchants cannot rely on the principle of a "trusted-third-party" *i.e.* on a system where the payment authorization is received from a bank or other financial entity rather than from the payer himself, so that in the implementation of Heinonen's system, however secure data transmissions may be made, merchants would certainly tend to be more reluctant to accept Heinonen's system than the system of the instant invention.

Fourth, the fact that in Heinonen's system payment authorization as well as data concerning the credit/debit balance must be loaded on the payer's mobile station necessarily in one call, prolongs the connection time and data volume needed for a transaction to be performed, thereby increasing the cost of the communication, the risk of communications breaking down because of the "length" of the communication and the subsequent need to restart the operation.

In summary, Heinonen fails to disclose or suggest the aspects of the present system that would render the reference applicable in rejection of the present claims. Accordingly, withdrawal of the rejection as it may be based on Heinonen, is believed to be in order and is requested.

Hannula fails to cure the deficiencies of the primary reference. Hannula discloses methods, apparatus and systems for performing electronic payment transactions between a

terminal equipment 100 *i.e.* a mobile station in a telecommunications network and another transacting party, *i.e.* a server of a digital money service 200 as for example a merchant, through a special payment service gateway 10.

The telecommunication means in Hannula comprise a plurality of equipment as well as a storage means, authorization means and a universal payment mechanism that employs a plurality of electronic payment protocols (*e.g.* col. 2, lines 7-19 and lines 49-51), whereby the service gateway carries out the conversion possible required between the generic payment interface of the terminal equipment of the payer and the payment mechanism used in each case at the payee's end (*cf.* col. 2, lines 51-54). Said payment protocols as well as the thereto related elements refer to processing payments on the payee's side so that only one common payment mechanism is needed in the terminal equipments *i.e.* in the mobile stations 100 (*e.g.* col. 2, lines 55-56). Hannula's system is also disclosed as using the same general electronic payment protocol between the payees and the gateway regardless of the electronic payment protocol of the terminal equipment in each payment transaction between the gateway and the terminal equipment.

To start a transaction, Hannula's system provides that the payer must provide a network address to the payer (*cf.* col. 7, lines 36-40) with which the payer then communicates to obtain payment, *i.e.* Hannula is silent in respect of the possibility that the payer's telephone number could be the basis for routing the steps of a transaction. This renders transactions made through Hannula's system rather complex.

It is common to the various embodiments disclosed in Hannula, that the payment request generated by the payee (*e.g.* col. 5, lines 6-26) so that a payment request is sent to the payee's mobile station for payment confirmation by the payee.

The teaching in Hannula is thus that, to provide communication with the payer's mobile station and with the payee's station, the protocol of the payment application is "translated" by the payment service gateway from a payer's specific protocol into a generic protocol and from the generic protocol into a payee's specific protocol. Hannula is however silent in respect of any database that contains information on the type of mobile telephone station that corresponds to the telephone number of the payee. Thus, the payment request call to the payer is enrouted only to

the payer's telephone number but not through the telecommunications service that is most suitable to establish the fastest and most efficient communication with the payer's mobile station.

Thus, when utilizing the system and equipment in Hannula, the payee starts the transaction by providing data on the transaction and on the payer's phone number (*i.e.* the phone number of the party that has not started the communication). Hannula's system does not "know" which is the most efficient telecommunications service to use for the communication. Moreover, even after having received a response to, for example, a payment request from the Hannula system, the system will only distinguish the specific payment protocol supported in the payer's mobile station, but not the type of the user's mobile station and thus not the most efficient system of communication that said mobile station is capable of using.

Currently most cellular phone are capable of sending and receiving short messages, others are additionally capable of communicating by WAP systems. In the near future, mobile stations based on UMTS technology will become available. As, however, Hannula's system will always start communicating through a certain digital system as for example SMS, the mobile station will respond using SMS, even if it has additional capacities which would be the more efficient ways to communicate such as WAP or UMTS capacity, so that in these cases further communications between the gateway and the mobile station will always be continued on the basis of a telecommunications system that is not the optimum one.

Thus, while the invention disclosed in Hannula may be useful in compatibilizing payment protocols, it has, while knowing that a payer's mobile station supports a specific payment protocol after having received a response from the payer, the disadvantage of not knowing or being able to learn or know the <u>most efficient</u> telecommunications means for communicating with the party that has <u>not</u> started communication on an transaction. That being so, Hannula's system will always have to "translate", convert or adapt communications to the generic payment format, even when the payee's and the payer's telecommunication systems were compatible This requires substantial processing resources in respect of the computer hardware required to reduce Hannula's system to practice.

When comparing Hannula's system with the present invention, it becomes apparent that Hannula does not disclose,

(a) a safety criterion univocally associated to the payer's telephone number;

(b) first information comprising at least an admissible telephone number of an associated payer stored in first storage means;

(c) a plurality of telecommunication equipments

(d) as noted by the examiner, neither verifying means nor authorization means in financial transactions;

(e) second information referring to the type of digital mobile telephone apparatus corresponding to each telephone number contained in second storage means;

(f) second data storage means that contain at least second information referring to the type of digital mobile telephone belonging to each telephone number;

(g) selecting means for verifying in the second data storage means, the second information corresponding to the digital telephone identified by the admissible telephone number, and for selecting one of the telecommunication equipments so as to use that one of the telecommunication equipments being able to communicate with the digital mobile telephone identified by the admissible telephone number by means of a telecommunication service being compatible with the type of digital mobile telephone identified in said second information.

In summary, Hannula, whether alone or in combination with Heinonen, fails to provide the requisite teachings to enable the development of the system of the presently claimed invention, so that a rejection as it may be based on Hannula in combination with Heinonen, is deficient.

Jachimowicz discloses a smart card with a contactless optical interface which may be operated in association with a security device or security circuit and which will allow operation only in response to some secret information. A part from not referring to payments being made by mobile telephones, Jachimowicz does not provide any details on what the authorization means and the verifying means specifically are, nor how they operate nor how they interact with each other. Jachimowicz does thus not disclose any of the features of the characterizing portion of amended claim 1 as filed herewith.

As discussed above, none of the three references relied on by the examiner discloses the combination of features defined in the characterizing portion of amended independent claims 1

and 46 as submitted herewith. Applicants submit that, for this reason, combining the teachings of the three cited references would not lead the skilled person towards said combination of features. In fact, combining the systems of Heinonen and Hannula would result in a system comprising Hannula's payment service gateway but which would still involve direct communication between the payer's mobile station and the EPOS as taught in Heinonen. Further, the combination of the teachings of Heinonen and Hannula with those of Jachimowicz would result in a system that, at the most, would comprise the features of the preambles, but not those of the characterizing portions, of independent claims 1 and 45 as submitted herewith.

The combination of features as recited in new independent claims 1 and 45 also overcomes the disadvantages in respect of security of communications and establishing communication between a first server and a payer's mobile station. Thus, as no direct communication between the payer and the payee is involved, falsified payment confirmations from a fraudulent payer's mobile station are avoided.

Further, due to the existence of the second information on the type of mobile telephone apparatus and of the selection means that verify said second information and are able to route the communication to the payer's mobile telephone by that of the plurality of telecommunications means through a telecommunication service that is most suitable for communicating with the technical features of the payer's mobile telephone apparatus, the system as claimed permits establishing efficient communication even when it is not the payer who has established communication with the first server for initiating a transaction. Thereby, efficiency of communication is achieved, and a reduction in the need of processing capacities that would otherwise be needed for continuous conversion of communication protocols is avoided.

It is therefore submitted that, in addition to reciting unobvious combinations of features, the independent claims of the instant application as they now stand, lead to advantages that the skilled person would not have been able to derive from the cited references.

In view of the above, applicants consider that the invention as now defined in the independent claims, as well as the features recited in dependent claims 2-44 which include all limitations of independent claim 1, define a patentable invention.

Favorable consideration of the instant submissions and allowance of the subject application is thus earnestly solicited. If discussion with the undersigned will be of assistance in resolving any remaining issues, the Examiner is invited to telephone the undersigned at (201) 487-5800, to effect a resolution.

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